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DEVELOPMENT OF ECHTA: A CHECKLIST TO GUIDE EQUITY CONSIDERATIONS IN HEALTH TECHNOLOGY ASSESSMENT

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Abstract:	Objectives HTA can impact health inequities through its role in accessing health technologies and interventions. This paper presents a novel checklist to guide HTA practitioners looking to include equity considerations in their work: the equity checklist for HTA (ECHTA). The list is pragmatically organised according to the generic HTA phases and can be consulted at each step. Methods A first set of items was based on the framework for equity in HTA developed by Culyer & Bombard. After they were reworded and organised according to five HTA phases, they were complemented by elements emerging from a literature search. Consultations with method experts, decision-makers, and stakeholders further refined the items. Further feedback was sought during a presentation of the tool at an international HTA conference. Lastly, the checklist was piloted through an HTA. Results The equity checklist for HTA proposes elements to be considered at each one of the five HTA phases: Scoping, Evaluation, Recommendations and Conclusions, Knowledge Translation and Implementation, and Reassessment. More than a simple checklist, the tool provides details and examples which guide the evaluators through the analysis at each

	phase. A pilot test is also presented, which demonstrates ECHTA's usability and added-value. Conclusions ECHTA provides guidance for HTA evaluators wishing to ensure their conclusions do not contribute to inequalities in health. Several points to build upon the current checklist will be addressed by a working group of experts and further feedback is welcome from evaluators having used the tool.

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ECHTA: Equity Checklist for HTA

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ABSTRACT

Objectives

HTA can impact health inequities by informing health care priority setting decisions. This paper presents a novel checklist to guide HTA practitioners looking to include equity considerations in their work: the equity checklist for HTA (ECHTA). The list is pragmatically organised according to the generic HTA phases and can be consulted at each step.

Methods

A first set of items was based on the framework for equity in HTA developed by Culyer & Bombard. After rewording and re-organising according to five HTA phases, they were complemented by elements emerging from a literature search. Consultations with method experts, decision-makers, and stakeholders further refined the items. Further feedback was sought during a presentation of the tool at an international HTA conference. Lastly, the checklist was piloted through all five stages of an HTA.

Results

The equity checklist for HTA proposes elements to be considered at each one of the five HTA phases: Scoping, Evaluation, Recommendations and Conclusions, Knowledge Translation and Implementation, and Reassessment. More than a simple checklist, the tool provides details and examples which guide the evaluators through the analysis at

each phase. A pilot test is also presented, which demonstrates ECHTA's usability and added-value.

Conclusions

ECHTA provides guidance for HTA evaluators wishing to ensure their conclusions do not contribute to inequalities in health. Several points to build upon the current checklist will be addressed by a working group of experts and further feedback is welcome from evaluators having used the tool.

Key words: equity, health technology assessment, health disparity

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INTRODUCTION

Given its influential role in prioritising access to safe and effective health technologies and interventions, health technology assessment (HTA) also has the potential to influence inequities in health. Along with growing recognition of the need to explicitly consider the impact of health decisions on health equity (1), there is impetus to undertake equity analyses within HTAs. However, a number of surveys have found that the inclusion of equity considerations and analyses in HTA remains infrequent (2,3). Different reasons might explain this; including lack of relevant methodological knowledge and training as well as the greater time and human resource requirements and sparse primary data. HTA practitioners aspiring to assess inequities and provide recommendations to decrease them might therefore benefit from guidance on how to do so. This article describes the development of a checklist which aims to bridge this gap: the equity checklist for HTA (ECHTA).

Defining health inequity

A widely used definition of health inequity has been proposed by Whitehead (1992) and built upon by the WHO's Commission on Social Determinants of Health (CSDH)(4,5). It posits that health inequities are not merely differences in health status (termed "inequalities") but differences between groups that are unnecessary, avoidable unfair and unjust(6). The criteria of fairness and justice can be understood as systematic differences considered avoidable (5). Thus, all should have a "fair and just opportunity to be as healthy as possible"(7). The use of this definition in turn assumes that equity

considerations in the context of HTA imply a normative analysis since value judgements are applied to enable actions through recommendations, beyond the simple description of the current state of affairs. Nonetheless, the operationalisation of this definition firstly requires an understanding of the terminology used to refer to the individuals suffering from these inequities. Different terms have been proposed and used by different individuals and groups to refer to themselves. These include marginalised, disadvantaged, individuals living in positions of vulnerability, amongst many others. These terms have different implications and the authors recognise the agency of individuals in choosing the term that most empowers them (8). For the purposes of this paper, the term "disadvantaged" will be used; simply to denote that a health inequity represents a disadvantage in health status that is unfair. The authors hope, however, that these groups will recognise themselves in these writings.

Operationalising the definition of health equity also calls for an understanding of the factors modulating health, including health inequities. The authors adopt the CSDH's perspective and therefore recognise that several aspects influence the health impacts of a technology or intervention beyond its efficacy and safety. Notably, economic, organisational, sociodemographic, and other contextual elements modulate the differential effects of a technology or intervention (5,7,8). Different mnemonic aids and tools have also been developed to guide the recognition of potentially disadvantaged groups. For instance, the acronym PROGRESS Plus has been proposed to emphasize that inequities in health are not only due to poverty (that is, the rich-poor gap) but also other critically important factors, such as: Place of residence, Race/ethnicity/culture/language,

Occupation, Gender/sex, Religion, Education, Socio-economic status, Social capital; in addition the "Plus" refers to any other relevant characteristic such as age, sexual orientation, or disability (9). This provides categories through which disparities in health and its social determinants can be qualitatively and quantitatively analysed. Groups and individuals can, however, belong to more than one of these defined categories that is, they find themselves at the intersection of various categories of population groups (10). For instance, an individual might be an immigrant transgender woman living in a rural area. Intersectionality refers to the unique interplay between different axes which result in distinct societal power relations and not simply the sum of the categorical axes to which individuals relate (10).

Applying health inequity concepts to HTA

Such approaches remain however rather descriptive for the purposes of undertaking HTA. To address this gap, theoretical guidance has been increasingly provided. One such example is the Equity Framework for HTA suggested by Culyer and Bombard (2012). The framework is aimed at impacting both the procedures of the HTA endeavour as well as the final conclusions and recommendations resulting from the HTA. It consists of 13 guiding elements to consider during the HTA process (11). Another example is the GPS-Health tool which provides a concise list of criteria for guiding healthcare priority setting in addition to cost-effectiveness evaluation(12). These tools, however, are not pragmatic since they are not organised in a manner that allows practitioners to follow along each step of an HTA. The challenge therefore becomes to utilise tools that can

analyse inequities in health and its determinants at each phase. A number of references provide explicit methods or tools to guide the choice of HTA evaluators (13–15).

The tool presented here did not seek to address the specific methodological approaches to be utilised. Rather, it seeks to provide general points of reflection to guide HTA practitioners and researchers in their consideration of health equity. Thus, this paper's objective is to propose a checklist that builds on previous work in the field and present the initial face and content validation of the work undertaken. Given that the tool is based on an array of international tools and frameworks and that it remains generic in its approach, our aim is that it can be useful to all HTA practitioners and researchers wishing to include equity considerations throughout their undertaking of an assessment.

METHODS

A first set of items was defined based on the thirteen domains outlined by Culyer and Bombard(11) in their framework for equity in HTA. The domains are enumerated in Figure 1.

These domains, and the concepts they contain, were rephrased to render them more pragmatic. To increase user-friendliness, they were then organized into the HTA steps inspired by the HTA Iterative Loop suggested by Bennett & Tugwell (16) as well as the equity health impact assessment literature (17). This perspective views HTA as an iterative cycle which goes beyond evaluating and providing recommendations. Indeed, it evolves from scoping through to evaluation, recommendation and conclusion, knowledge translation and implementation, and lastly reassessment.

A non-systematic literature search was undertaken to complement the initial list with additional elements and considerations. Methodological guidance tools and documents relating to the inclusion of equity in HTA were searched. First, generic searches on Google and Google Scholar using a combination of synonyms for the concepts of health technology assessment and equity were undertaken. Second, the websites of the following organizations were also targeted: HTA International (including the websites of their Ethics interest group and their Patients and Citizen Involvement interest group), the International Network of Agencies for HTA (INAHTA), Quebec's National Institute of Excellence in Health and Social Services (INESSS), the Canadian Agency for Drugs and Technologies in Health, the World Health Organization (WHO), and the Cochrane

Collaboration. Select elements were therefore included from seven additional studies and guidelines (9,18–23).

Feedback was sought from experts on equity in HTA through email and telephone correspondence. The list of experts was expanded through snowball referencing, for a total of 10 experts. The experts represented a wide variety of perspectives emanating from different contexts, including academia in high-income and low and middle-income countries, governmental agencies as well as HTA practitioners at national and regional levels. These experts appear as authors on this paper or are acknowledged, depending on their degree of participation and willingness to participate as authors of the work. The feedback received was compiled and analysed through a content thematic analysis. Themes and codes were created using a general inductive analysis approach (24). Themes first depended on whether they pertained to the tool itself or its description within this paper. Those themes pertaining to the tool were further categorised according to the relevant section of the tool. There were no contradictions or incoherence in the comments provided. This allowed for the validation of the checklist items as well as their organization and presentation. The tool was also presented at an international conference on HTA in 2019 and the additional feedback received verbally was incorporated into the checklist (25).

Since the goal was to develop a guidance checklist, rather than an evaluation tool, external validity and interrater reliability were not tested. A pilot test was undertaken with an HTA project on corticosteroid injections and other treatments for chronic low

back pain in the context of a regional health network in Quebec (26). The project manager was the first author on this paper (MB) and the supervisor was another co-author (PD). The project also involved an advisory committee made up of a wide range of stakeholders, including healthcare professionals, managers, and users and parents of children users. This committee was involved in all phases of the HTA. It was informed and invited to further comment and discuss on the analyses, proposed changes, and provide data that might answer those equity-related questions. The elements of the checklist were consulted at each separate phase of the HTA project. Adjustments were made when the analysis of a checklist element brought up concerns that had previously not been considered. As a result, the checklist was subsequently further revised so as to facilitate its use.

RESULTS

The result was a five-phase checklist, containing explanations and examples, aimed at HTA evaluators to facilitate the consideration of various domains of health equity within the evaluation process: the Equity checklist for health technology assessment (ECHTA). Once a decision has been made to appraise a particular technology or intervention, ECHTA can accompany evaluators through all five phases of an HTA. They include the initial negotiations with decision-makers requesting the evaluation and defining the scope of the HTA, through to the evaluation, and the development of recommendations and lastly, knowledge translation and implementation strategies that consider disadvantaged population groups as well as understanding the need to reassess the

technology or intervention. Although all five phases may not take place in every HTA, evaluators may refer to the items in the phases relevant to their particular project. It is important to note that, the checklist is not meant to be completed in one sitting. Rather, it can be consulted at the start of each phase and in an iterative manner throughout the completion of the work.

The first phase, Scoping Phase, brings questions relative to defining, identifying, and contextualizing equity, such as identifying potential disadvantaged groups and including vulnerability factors in a logic model or other theoretical frameworks. Second, the Evaluation Phase facilitates the adoption of methodological approaches which are conducive to analysing inequities as well as considering contextual realities which have an impact on inequities. Its elements are subdivided into four categories: outcome measures, data collection and analysis, contextual considerations, and stakeholder involvement. Third, the Recommendations and Conclusions Phase addresses evidence synthesis approaches, the contextual factors to consider, as well as the generalisability versus specificity of recommendations to particular population groups. This aims at ensuring that the drafted recommendations consider existing inequities. It is also imperative that they avoid contributing to greater inequities. The elements of this phase are categorised according to scope, contextual considerations, and stakeholder involvement. Fourth, the Knowledge Translation and Implementation Phase prompts evaluators to consider whether the chosen implementation methods favour certain population groups as well as whether there might be a benefit to targeted knowledge translation approaches. Lastly, the fifth Reassessment Phase questions the

methodological approaches as well as any changes in context that might have occurred since the initial evaluation. The full list of ECHTA elements is found in table 1.

Using ECHTA

As previously mentioned, ECHTA could be used by any researchers or evaluators wishing to consider health inequities in their HTA. The checklist acts as a prompt for the various elements to consider during the undertaking of an HTA. It is not meant to be completed in one sitting, but rather to be consulted at beginning of each step. Indeed, although the list may seem long and time-consuming, it could instead be regarded as five interconnected lists. Certain elements may not be relevant to the HTA at hand and therefore may be omitted. Their relevance, however, can only be determined upon adequate consideration. The authors nevertheless recommend that evaluators become familiar with the entirety of the checklist on the first use. The use of ECHTA may certainly be easier for evaluators with prior knowledge of ethics and equity evaluations. The checklist remains nonetheless aimed at all HTA evaluators with the hopes that it will increase knowledge of these issues.

Stakeholder involvement

Stakeholders can be defined as any "individual with an interest in the outcome of the HTA process final decision" (27). They may include healthcare professionals, health system payers, managers and other employees, patients, users, and carers. The level of involvement stakeholders can have within an HTA may vary according to the length and depth of the assessment or according to the perceived purpose of stakeholders that

HTA evaluators may have. Stakeholders may only be included as a source of data or on a sporadic basis throughout the project or they may be involved throughout the entire process. Stakeholders may also be formally included in the process via participation in an advisory committee, which has a say in every phase of the HTA, including the co-construction of final recommendations and conclusions (27). While adopting an equity lens, the advisory committee should be cognisant of representing a diversity of relevant population groups. Indeed, it is important to note that the involvement of stakeholders does not inherently result in an understanding of health inequity concerns. Rather, it is advisable to ensure that the stakeholders, including patients and citizens, involved represent various population groups, notably disadvantaged groups. A limitation of stakeholder involvement in HTA relates with the overrepresentation of certain interests and views to the detriment of other relevant social elements. This drawback is not specific to equity analyses but could be relevant to any social value judgment. This concern can be mitigated by a transparent and accountable process including the disclosure of conflicts of interests of all stakeholders included.

Pilot test

To assess the usability of the checklist, a pilot test was undertaken through a comprehensive HTA on corticosteroid injections and other treatments for chronic low back pain. The HTA aimed at answering the needs of a regional health network in the province of Quebec, Canada. As such, the HTA assessed the safety and efficacy of corticosteroid injections, guidelines for the other treatments, as well as organisational considerations for the optimal use of recommended treatments. The use of ECHTA

rendered explicit the consideration of various factors modulating equity, beyond the differential efficacy of at risk groups. For instance, it prompted the definition of what constitutes inequities in the context of the region and consequently enabled the team to engage with the appropriate stakeholders to further understand these realities. During the evaluation phase, ECHTA pushed the evaluators to consider inequity in the choice of outcome measures and to seek contextual data that also considered minority groups in the population. These considerations resulted in recommendations that explicitly took into account the potential realities of these groups. Table 2 presents examples of these recommendations, which are contrasted with possible outcomes had ECHTA not been used. These possible outcomes are inferred from the conclusions usually obtained in previous HTA's undertaken by our unit that did not undertake an equity analysis.

ECHTA has yet to be used in the fourth Knowledge Translation and Implementation phase or the fifth Reassessment Phase of an HTA. This, combined with the fact that these phases are seldom described in HTA reports, has meant that a relatively smaller number of equity elements of consideration are currently listed under these phases. It is the hope of the authors that these phases will be further populated as the tool is utilised and feedback is provided from the HTA community.

DISCUSSION

This paper presents a first iteration of ECHTA, a checklist to guide the consideration of equity during the undertaking of an HTA and the results of its first application. This

checklist does not claim to answer all barriers impeding the greater prevalence of equity analyses in HTA. Rather, it is aimed at practitioners already considering including an equity analysis in their work. It is meant as a starting point to reflect on the factors potentially impacting inequities and the means to consider them throughout the HTA. To the authors' knowledge, this is the first pragmatic checklist that can be used as a reference throughout all the phases of an HTA. It does, however, base itself on the rich pre-existing work in the field (11,16,18,21).

The tool is meant for all HTA evaluators, regardless of their expertise in health equity analysis. Although evaluators with less experience doing equity or ethics analyses might encounter a greater learning curve and might require consulting additional references. It is our hope that ECHTA will come as a facilitator to their learning. Furthermore, the use of ECHTA certainly generates the need for greater resources. For instance, the process of collecting and analysing disaggregated data, which adequately represents various minority groups can be more difficult and lengthy. Additionally, discussions with stakeholders and committees may be longer given the greater data, and sometimes controversial, nature of recommendations that require further analyses of the healthcare system's value judgements. The precise amount of additional resources required is largely dependent on the project, its research questions, and the context within which the analysis is made. Nevertheless, much like other methodological developments in HTA, we view equity analyses in HTA as strengthening the decision-making process and contributing to its legitimacy. A first pilot has demonstrated its usability and added-value. It has shown that the use of ECHTA can aid in the

consideration of the impact on different population groups and result in recommendations which take these groups into account. Thus, these recommendations can have concrete impacts on these population groups and ensure that the results of the HTA do not exacerbate inequities and, ideally, contribute to diminishing them.

The subsequent use of ECHTA in various types of HTAs will further strengthen the checklist through future revisions, notably through additional elements in the fourth Knowledge Translation and Implementation phase and the fifth Reassessment Phase. Indeed, these latter phases are often influenced by a greater number of factors and actors that go beyond the core HTA evaluation team and might therefore require more nuanced considerations. Similarly, the prioritisation of the HTAs to be undertaken may involve various actors beyond the evaluation team and the selection criteria might not always include health inequities. Such processes can subsequently lead to a systematic omission of the needs of minority groups. This important element is currently missing from ECHTA. HTA evaluators should remain cognisant of such prioritisation criteria and be reflexive and explicit of it in their identification of opportunity costs in the scoping phase. Although the inclusion of knowledge translation experts, decision-makers, and healthcare users representing those disadvantaged groups throughout the entire HTA process can help remedy this situation, it is important to acknowledge that the responsibility frequently lies beyond that of the HTA evaluation team. Nevertheless, the authors aspire to provide more detailed guidance on this concern in future work.

Other developments for ECHTA might include more specific guidance on addressing intersectionality considerations as well as a shorter version of the checklist that identifies those considerations that are usually of importance for policy makers or for which there is often evidence. An international group of experts has formed a workgroup to further the development of the tool in order to address these points and others that might arise. The current iteration is ready to be used and the authors welcome any constructive feedback resulting from its use in other HTAs. Amongst other things, the checklist would benefit from use in HTAs in different settings, including resource-poor settings and examples outside of North America. The authors realise that a number of terms and concepts introduced in ECHTA are specific to the health equity literature and might benefit from further explanation.

The length of ECHTA might lead to think that its main use would be for comprehensive HTAs. These HTAs, having longer timelines and greater resources, would have a greater capacity for additional analyses. Evaluators are nevertheless invited to use ECHTA for all their evaluations. Indeed, recommendations and conclusions emanating from rapid HTAs have the same potential of differentially impacting minority groups as more comprehensive evaluations. Several strategies could be adopted when using ECHTA for shorter HTAs. For instance, checklist items could be considered but analysed in lesser depth. In addition, certain inequities emerging during the first Scoping Phase could be prioritised according to their severity or the capacity to address them given limited resources. Such normative value judgements should be undertaken in consultation with

decision-makers and stakeholders. Additionally, the limitations of these simplified analyses must be addressed. These could give rise to specific guidance for rapid HTAs.

Despite these shortcomings, ECHTA aims to facilitate the consideration of health inequity during the HTA process and presents a pragmatic approach to achieve this. The authors hope that the usefulness of ECHTA will be recognized and improved as is it used and that HTA evaluators can look to these working examples for inspiration. We also hope this work will catalyze further engagement and discussion to better understand the barriers that have prevented equity analyses in HTA from being more prevalent.

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Tables

Table 1 Equity Checklist for HTA (ECHTA)

Scoping phase		
Category	Key question	Details
Defining the problem	• Define: equity of what?	• Dimensions of equity: Need, access, health status, function, prognostic with or without the intervention, quality of life, social determinants of health, etc. • Explore current inequalities related to the HTA during the exploratory review. • Define what would constitute an unjust state of affairs or situation regarding the inequalities found. • Equity goals: (i) equal access, (ii) equal utilisation, (iii) reduced inequality in health
	• Define population subgroups to consider through the use of a logic model and/or theoretical basis.	• Are we interested in inequality in health between social groups? (e.g. using the PROGRESS+ or other relevant acronyms) • Are we interested in inequality in health between disease groups? • Are we interested in inequality between future health or lifetime health? • Is a specific subgroup benefitting from this technology? • How is inequity linked to inputs, process, and outputs of health and social services? • How does one account for disadvantages?

	• Could the scope of the HTA lead to potential biases for or against specific population groups?	• This can include the research questions or breadth and depth of the analysis.
Contextual considerations	• What are the opportunity costs of conducting an HTA of one intervention/technology over another? • How will the intervention/technology be funded and what would be the distribution of the opportunity cost?	• The cost of undertaking this HTA over another more relevant to a disadvantaged group. • The costs that might negatively impact specific disadvantaged groups. • How will the funding source for this intervention impact other existing healthcare programs (e.g. taxation, cuts to other programs, public versus private funds, etc.)
	• Are there legal contexts to consider regarding institutionalised discrimination?	• Are there implicit or indirect obligations to consider in the evaluation?
	• Are there historical disadvantages to consider that might impact the choice of variables to assess, the choice of methods, etc.?	• For example: indigenous populations, racialized groups
Stakeholder Involvement	• Were all relevant stakeholders included in the scoping process? • Does the inclusion of different stakeholders impact/change the process?	• Examples: healthcare professionals, patients/system users, managers, and members of the public • Does the way in which stakeholders are involved impede certain population groups from being adequately represented?
	• Which are the most appropriate ways of including patient perspectives?	• How to consider the diversity of patients? • Is there an institutional policy on the inclusion of patients?
Evaluation phase		

Category	Key question	Details
Outcome measures	• Are the outcome measures chosen relevant to patients' perspectives?	• Is there a study referenced demonstrating the importance of these outcomes to patients? • Were patients/system users involved in the choice of outcome measures?
	• Do outcome measures include the different aspects through which inequities can emerge?	• Aspects of outcome measures: coverage, prevalence, uptake, access to care, etc. • Is it possible to assess baseline inequalities through quantitative and qualitative data? • Do defined outcome measures omit important dimensions that may exclude certain population groups?
	• Are the thresholds used to define improvements or deteriorations in outcome measures appropriate for all population groups?	• Thresholds might be influenced by gender, age, etc.
	• Is there an economic analysis and does it include an equity analysis?	• For example: Distributional cost-effectiveness analysis, extended cost-effectiveness analysis or other forms (subgroup analysis, utility weights, mathematical programming, etc.)
Data collection and analysis	• Are the methods used to collect and/or identify data conducive to finding data on disadvantaged population groups?	• Are disadvantaged groups explicitly included in the search strategy? • Does the grey literature include sources targeting or considering disadvantaged populations?
	• Are analytical methods appropriate for all groups?	• For example: culturally acceptable, allow for fair representation, etc.

	• Do the tools used to assess the evidence incorporate the consideration of equity elements?	• The evidence includes clinical, economic, experiential, etc. • Examples of tools: GRADE equity, AMSTAR 2, distributional CEA, etc.
	• Does the analysis of potential inequities consider cumulative life experiences of those impacted?	• Health inequities are impacted by a range of different disadvantages in a person's life.
Contextual considerations	• Are there any institutional biases that might contribute to inequalities?	• Are there structural or organizational realities that disadvantage certain groups? • Are certain groups underrepresented in organizational stakeholders (managers, health professionals, etc.) such that power dynamics are imbalanced?
	• Are there care processes that might contribute to discrimination?	• For example: is there a bias that favours individuals with greater capacity to navigate bureaucratic systems; can certain care processes disadvantage certain individuals?
	• Do certain special claims have to be considered in the contextual analysis?	• For example: need (low baseline health status), historical claims, willingness to pay, etc.
	• Are there psychosocial issues relevant to your context that impact specific population groups?	• These can include various social determinants such as education, socioeconomic status, ethnic and racialized groups, gender and LGBTQI, etc.
	• Does the distribution and supply of services in your context impact inequities in health outcomes?	• Distribution disparities can be geographic, through payment, etc.
Stakeholder	• Are the methods used to	• Are there specific tools that

involvement	include patient perspectives appropriate and do not lead to a systematic exclusion or under-representation of certain population groups?	support the analysis of disaggregated data and/or the consideration of minority population groups?
	• Do the methods used to involve stakeholders allow for all relevant parties to be represented?	• Are there barriers to participation not accounted for? For example: no public transit available, times of meeting, etc.
Recommendations and conclusions phase		
Category	Key question	Details
Scope	• Were the results synthesized using a summary table which included findings relating to inequity?	• Summarised results can still include findings on disadvantaged groups.
	• Do the recommendations account for the different aspects through which inequities can emerge?	• For example: coverage, prevalence, uptake, access to care, etc.
	• Are recommendations generalizable to all population groups?	• Should some recommendations specify that they do not apply to certain disadvantaged groups? • Do certain recommendations target disadvantaged groups?
	• Could certain recommendations increase inequities?	• Could certain recommendations heighten the barrier to access to healthcare services for particular population groups? • Might certain population groups have reduced resources as a result of the recommendations? • Which alternatives could be suggested?
Contextual considerations	• Are there legal contexts to consider in the recommendations?	• Are there legal aspects regarding certain population groups that

		must be taken into account?
	• Are there historical disadvantages to be considered in the recommendations?	• For example, specific to indigenous groups or racialized populations.
	• Are there recommendations relating to a change in culture and/or the institutional system which could contribute to inequities?	• Could alternatives be proposed?
Stakeholder involvement	• Were all relevant stakeholders included in the scoping process? • Do the methods used to involve stakeholders allow for all relevant parties to be represented?	• Does the way in which stakeholders are involved impede certain population groups from being adequately represented? For example: the methods for deliberation create barriers for participation of certain persons, capacity for transportation, level of literacy for understanding the final written product, etc.
Knowledge translation and implementation phase		
Category	Key question	Details
Methods and stakeholders	• Do the approaches selected to implement recommendations favour certain population groups above others?	• Selected implementation methods may not be suitable or optimal for certain disadvantaged groups. For example: reading material may exclude groups with lower literacy.
	• Does the prioritisation of recommendations to be implemented favour certain population groups above others?	• What values were used to prioritise recommendations? Do these consider disadvantaged groups?
	• Do certain population groups within each stakeholder category require targeted knowledge translation	• Might separate and specific approaches be beneficial to enhance the reach to certain population groups?

	approaches?	
Reassessment Phase		
Category	Key question	Details
Methods	• Does the methodological approach chosen allow for the analysis of disaggregated data by relevant population groups?	• Is it possible to assess the difference in inequalities from baseline through quantitative and qualitative data?
Contextual changes	• Were certain population groups not considered in previous HTA phases impacted differently? • Were there contextual changes that might impact HTA outcomes with regards to different population groups?	• Were there disadvantaged groups that were omitted in the previous assessment? • Are there new populations groups to consider?

Table 2 Examples of impacts on recommendations through the use of ECHTA

Recommendations using ECHTA	**Possible outcome without ECHTA**
Caution should be taken when prescribing corticosteroid injections to patients at greater risk, such as patients over 50 years of age.	Consideration of average efficacy with little consideration of distribution across at risk population groups.
Evaluate the need for additional fluoroscopic equipment throughout the region (notably in areas further from the largest urban centre).	Little consideration of barriers resulting from geographic distribution of services throughout the large territory of the region.
Patient preferences, notably treatments other than injections, are imbedded in the final recommendations.	No explicit assessment of local patient preferences and only safety and efficacy influence the recommendations.
Ensure adequate public access to physiotherapy and psychotherapy.	No consideration of socioeconomic disparity in access to interdisciplinary treatment due to insufficient public services in physiotherapy and psychotherapy.
Further evaluate accessibility challenges for English-speaking and other linguistic minorities.	No consideration of local linguistic minorities.

Figure 1 : Culyer and Bombard framework for equity in HTA domains

Culyer and Bombard framework for equity in HTA domains

1- Reviewing the distinction between equity and equality and the dimensions these are reacting to;
2- Adequacy of the domains of equity; such as direct or indirect consequences, disease focus versus other characteristics, health care inputs-processes-outcomes, etc.;
3- Legal obligations; such as antidiscrimination legislation;
4- Embedded inequities; which arise from the characteristics of the HTA analyses or the intervention being assessed;
5- Institutional bias; which leads to inequities imbedded within organizations;
6- Implicit stereotyping; which refers to assumptions made about a condition or a group of people;
7- Contexts, behaviours, and circumstances;
8- Processes in HTA;
9- Hidden opportunity costs; which are costs felt by both those affected by the intervention and those impacted by consequential changes in resource distribution;
10- Processes in the delivery of care;
11- Special claims; which include claims of need, of responsibility, of historical considerations, etc.;
12- Cumulative effects from past disadvantages or advantages contributing to current inequities;
13- General principles; which refer to the minimal requirements for equity and their applicability to the context at hand (11).